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Lecture 2

Fodder/Forage crops- Importance, classification of fodders – Hay and Silage their preparation and preservation Contd...



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28.1 Characteristic Features of Forage/ fodder

Crops or ideal characters of forage/fodder crops-

It should be succulent and juicy and easy palatable.

It should have more number of leaves i.e., high leaf-stem ratio, less shattering of leaves.

It should contain high amount of carbohydrates or proteins.

Resistance to pests and diseases.

It should have regeneration (ratooning) capacity.

It should have quick growth and smother weeds.

More number of tillers and fine stem.

Should be photo insensitive and give more number of cuts.

Should have shorter life cycle so that it can fit in cropping systems.



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28.2 It should tolerate shade, drought resistant so best suited for agri, silvi pastoral conditions.

Should be suited to different soil classes from III to VII.

It should be free from hairs and thorns.

It should be free (or) less concentration of anti-nutritional factors.

Classification of fodder crops

I. BASED ON FAMILY:

Poaceae: Wheat,maize,jowar and bajra.

Legumaneae: Cowpea,Lucerne.

Cruciferae: Chinese cabbage,Japanese rape.

II. BASED ON MAINTAINANCE

a. Maintenance crops : Ex :Maize,Bajra,Sorghum

b.Non-maintenance crops: Ex :Wheat Bhusa, Rice Straw, Sorghm & Maize stover.



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28.3 III. BASED ON THE PROTEIN CONTENT:

Low protein forage crops: Ex:Cereals,grasses

High Protein forage crops: Ex:Legumes

IV BASED ON SEASON .

Kharif	Rabi	Summer
Cowpea	Oat	Bajra
Sorghum	Barley	Multicut sorghum
Maize	Berseem	Cowpea
Grasses	Lucerne	Grasses



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28.4 V. BASED ON ORIGIN

a.Indigenous sps. b.Non-Indigenous sps.

Ex : Marvel grass,Anjan grass Ex: Signal grass,
Timoty grass

VI. BASED ON LIFE CYCLE

1) Annual or Seasonal

- i) Legumes. Ex:cowpea,Berseem (D)
- ii)Non-legumes or cereals.Ex:maize,sorghum A & B

2) Perennial forage crops :

- i) Non-legumes or grasses :Ex :Guinea grass (C).
- ii)Legumes. Ex:Subabul,Lucerne (E) & F



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28.5 VII. BASED ON HABIT:

- a. Herbs:** Cylinder stem goes vertically but $<2\text{m}$ length. Ex: Cowpea, Jowar, oat, maize.
- b. Shrubs:** Bushy in nature and may be biennial or perennial. Ex: Hedge Lucerne, guinea, hybrid napier.
- c. Trees:** Trees are pruned to feed the cattle with twigs along the leaves. This practice is called lopping. Useful in lean months. Ex: Subabul, Sesbania.



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28.6 VIII. BASED ON HABITAT:

- a. **Cultivated fodders:** Productive fodders which give higher green fodder yield (GFY). Ex: NB Hybrid, Lucerne.
- b. **Wasteland fodders:** Less productive fodders. Give less GFY and grown under poor management conditions. Ex: Rhodes grass, Marvel grass.
- c. **Marshy land fodders:** Forages grown under waterlogged conditions. Ex: Paragrass.
- d. **Aquatic fodders:** Forages grown under standing water. Ex: Water hyacinth and algae.